CHOMTECH

PINIO

BUILDING AUTOMATION MODULE

PINIO
control, monitor and expand!

MADE IN POLAND

PINIO is a versatile, open-source automation module designed for integration with Home Assistant and local IoT systems. It is intended for DIY users, integrators, and designers of modern installations — without the need for cloud services.

The device is based on the **Raspberry Pi Pico W / Pico2 W (RP2040)** microcontroller and can be programmed in **MicroPython, CircuitPython** or **C/C++**, offering great flexibility for developers and hobbyists. With native **MQTT** support, PINIO is perfectly suited as an actuator, status interface, and measurement module in smart installations.

ADVANTAGES

- local automation without cloud dependency
- full integration with Home Assistant via MQTT
- open platform – no licensing restrictions
- perfect for learning, prototyping, and deployments

APPLICATIONS

- home and local automation
- IoT system prototyping and testing
- MQTT integration
- education and microcontroller programming

FEATURES

- 2 digital inputs (e.g. buttons, sensors)
- 2 relays (up to 2A)
- OneWire bus support (e.g. DS18B20 sensors)
- Wi-Fi communication (2.4 GHz) via Pico W
- programming via microUSB
- compatible with DIN rail (TH35) enclosures
- wide input voltage range: 8–24 VDC
- detachable terminal blocks for easy installation and maintenance
- power connector with different pitch – increased mounting safety
- GPIO exposed as pin headers and solder pads for DIY expansion
- outputs for status LEDs and a reset button

DEVELOPER SUPPORT

The device comes with sample MicroPython code enabling:

- relay control
- input state reading
- 1-Wire sensor support
- MQTT communication
- integration with Home Assistant

The code is intended as a demonstration and can be freely modified and extended. It is not a ready-to-use production environment.

TECHNICAL SPECIFICATIONS

MICROCONTROLLER	Raspberry Pi Pico/Pico2 W
NUMBER OF RELAYS	2
NUMBER OF DIGITAL INPUTS	2
1-WIRE BUS	☑
COMMUNICATION	WiFi (built-in)
HOME ASSISTANT INTEGRATION	MQTT (MicroPython)
WEB INTERFACE	for custom software
OTA SUPPORT	for custom software
PROGRAMMING	MicroPython, CircuitPython
DEMO CODE	☑ sample firmware with MQTT

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